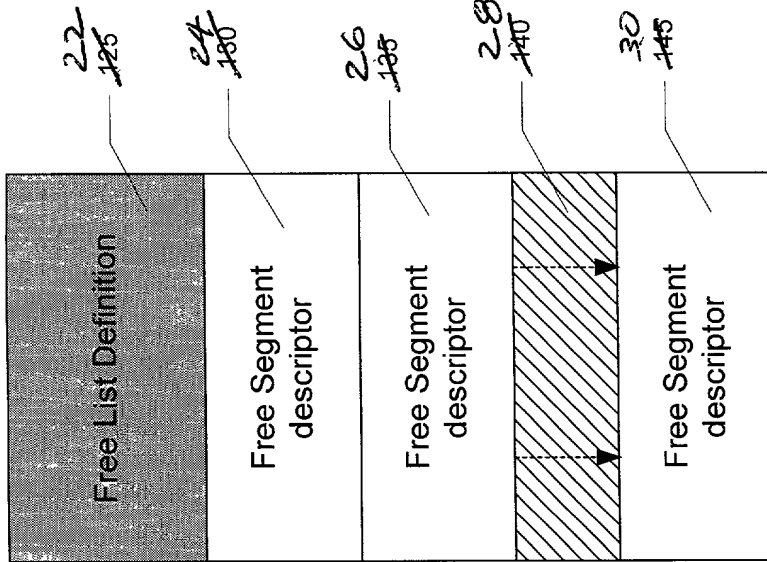
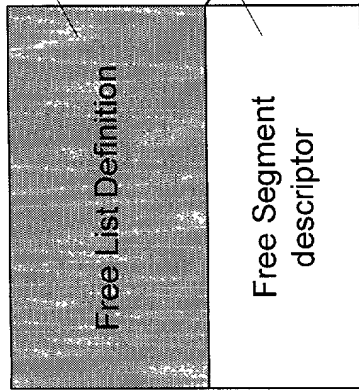


20  
120

View of a Free Segment List Table as multiple tables

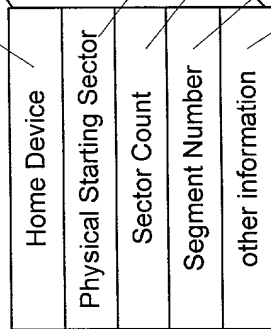


View of a Free Segment List Table as a single table



8  
150

Segment Descriptor components



10  
155

12  
160

14  
165

16  
170

18  
175

Free Segment descriptors are pre-initialized with information that defines the segment it represents. The home device, physical starting sector, sector count and segment number are examples of data that are stored into the descriptor before it is assigned into the segment map. the descriptor before it is assigned into the segment map.

Other data that becomes known such as status flags will be stored when a descriptor is assigned. (Status flags field is not shown, it is a member of "other information")

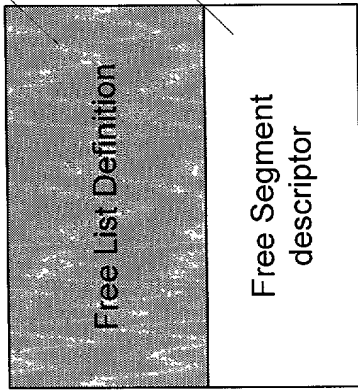
Figure 0.1 1

This free descriptor represents a specific area on a specific storage device.

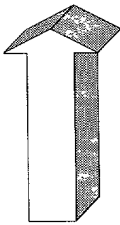
200 50

Free Segment List

205 52



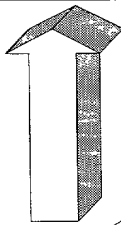
210 54



A Free Descriptor is moved from the Free Segment List to the appropriate slot in the Segment Map

Home Device
Physical Starting Sector
Sector Count
Segment Number
other information

56 240  
245 58  
250 60  
255 62  
260 64



Segment Map with allocated segments

220 68

225 70

Slot 0

Segment 0  
Allocated

230 72

Slot 1

Free Slot

235 74

Slot n

Free Slot

In this example, a free descriptor is moved into Slot 1 of the segment map.

After the data is stored into the free slot, the descriptor may be filled in with additional information that was unknown until it became allocated

Figure 0.2 2

Segment and Disk Sector Relationship

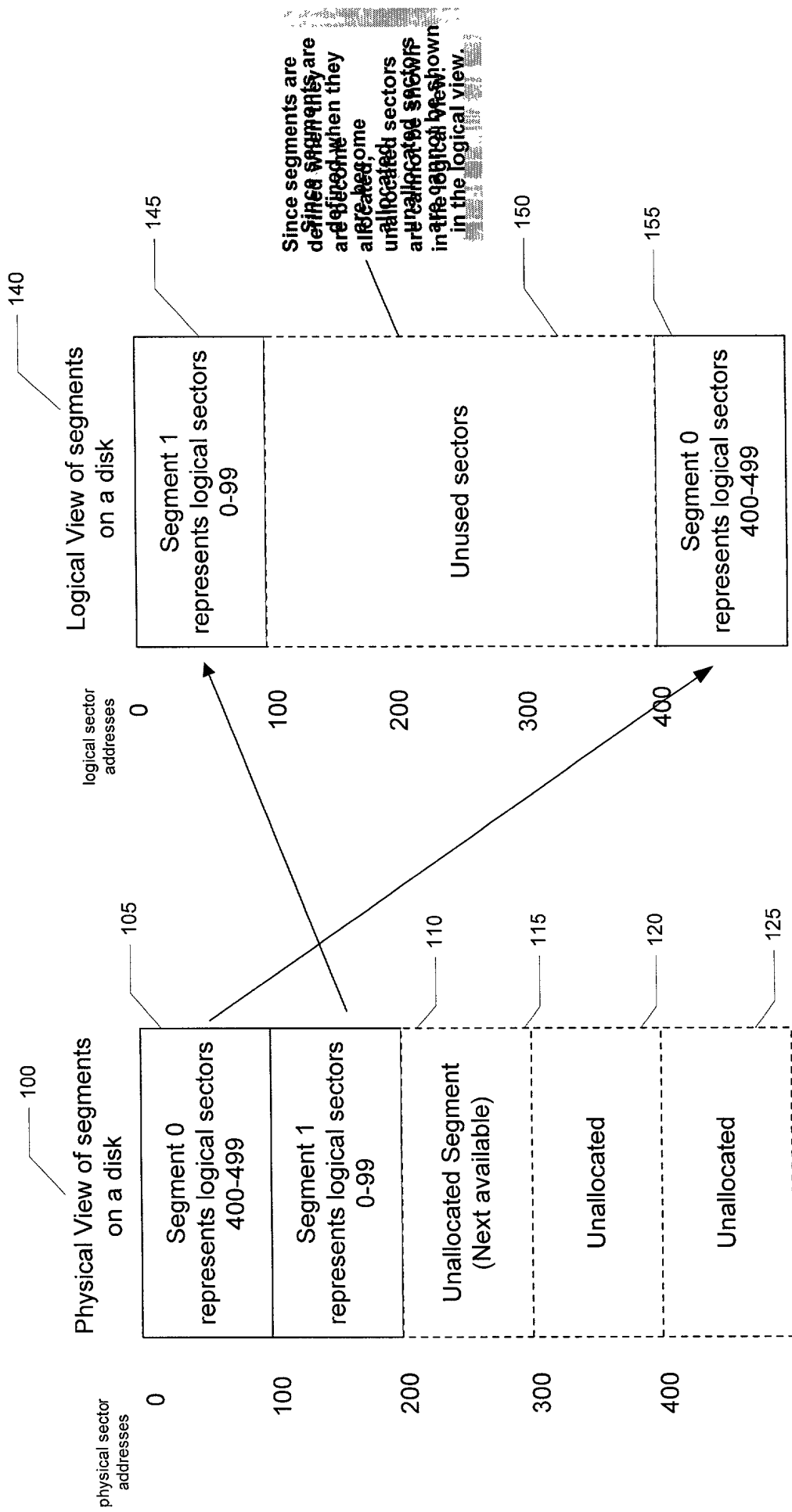
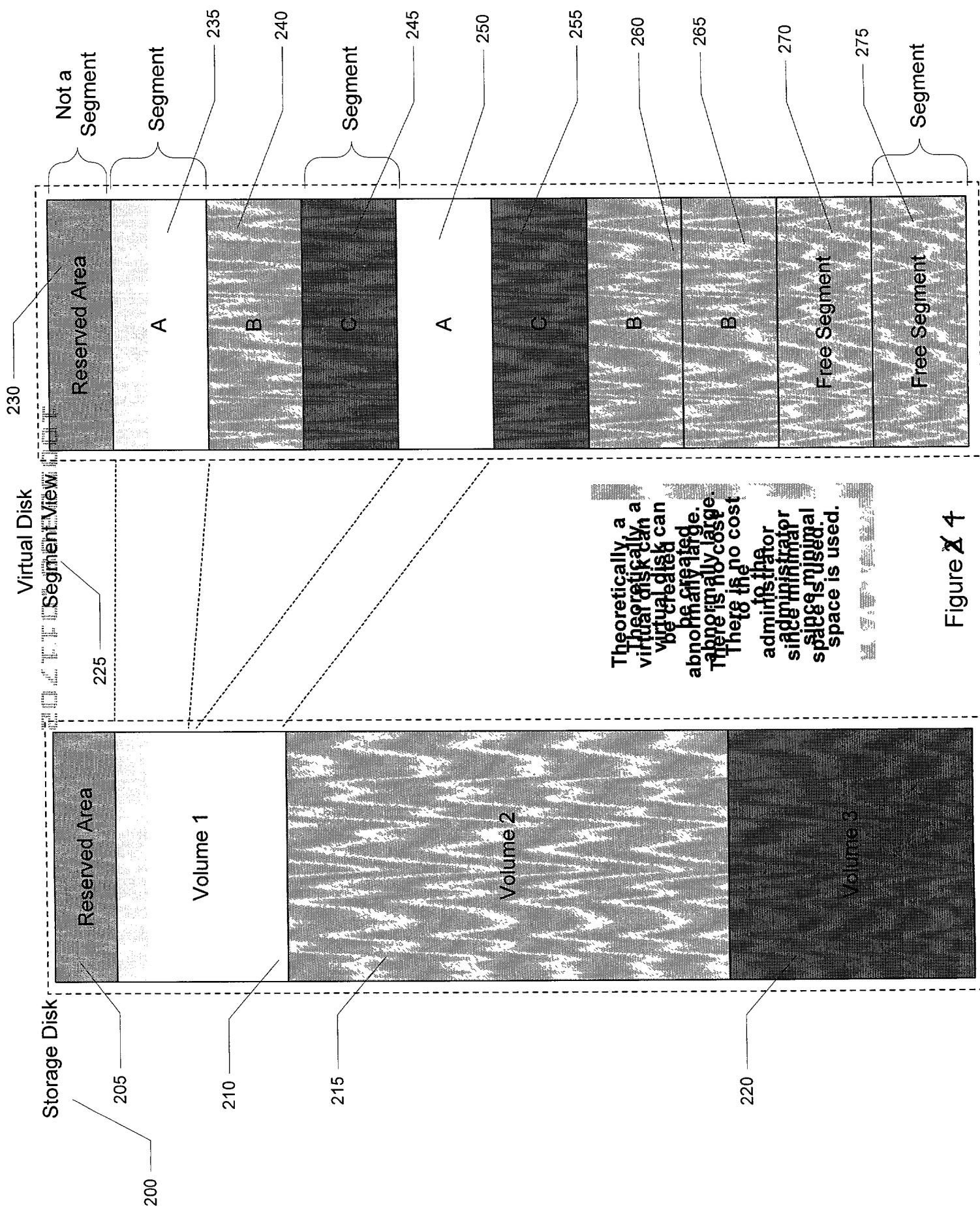


Figure 3



Theoretically, a virtual disk can be created. There is no cost to the administrator since minimal space is used.

Figure 4

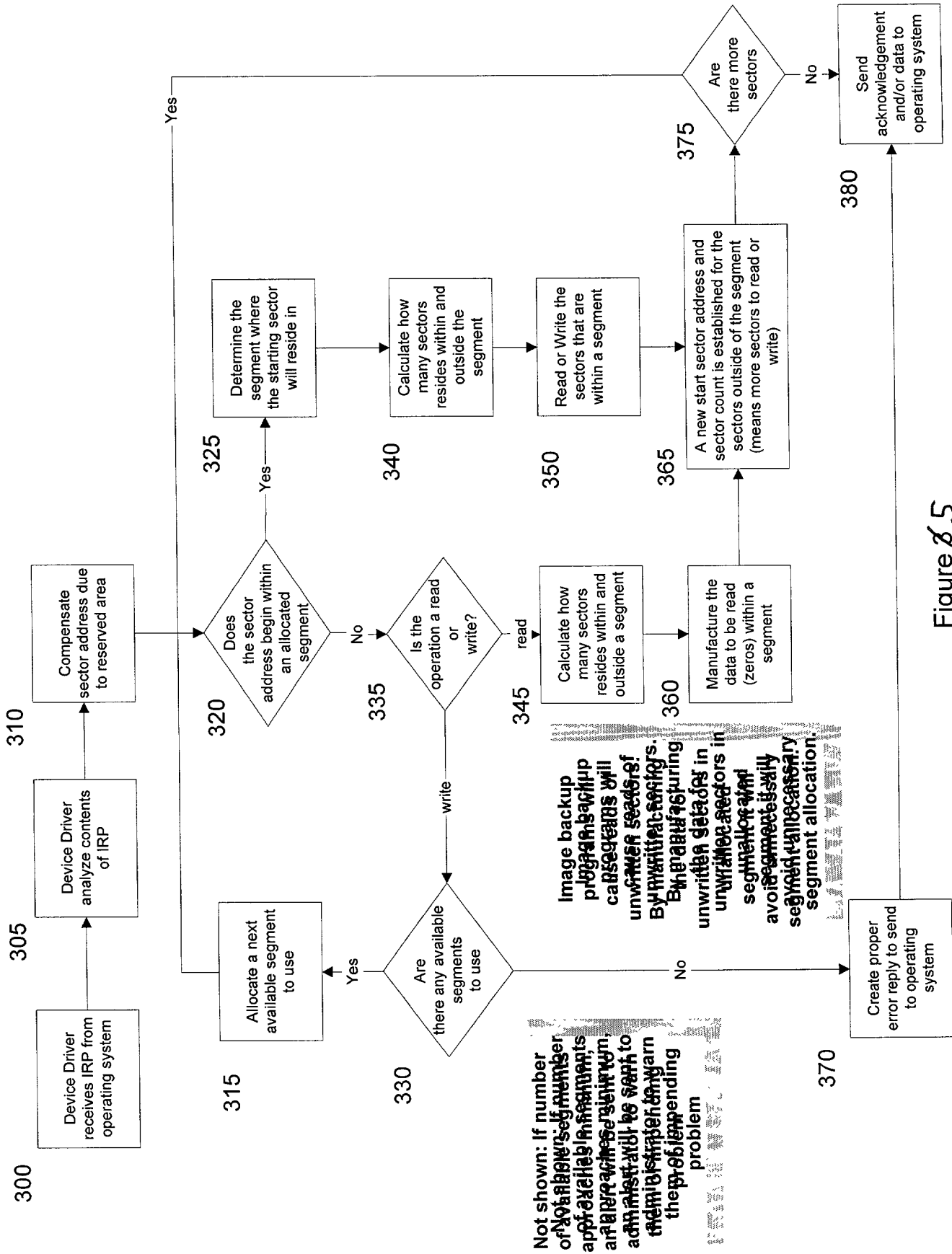
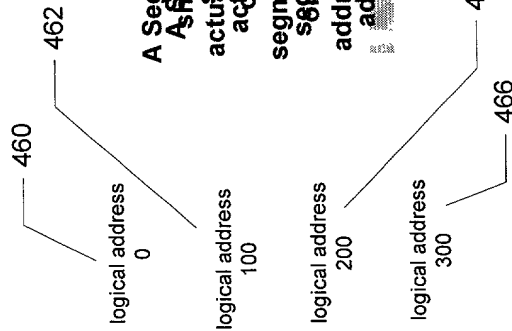
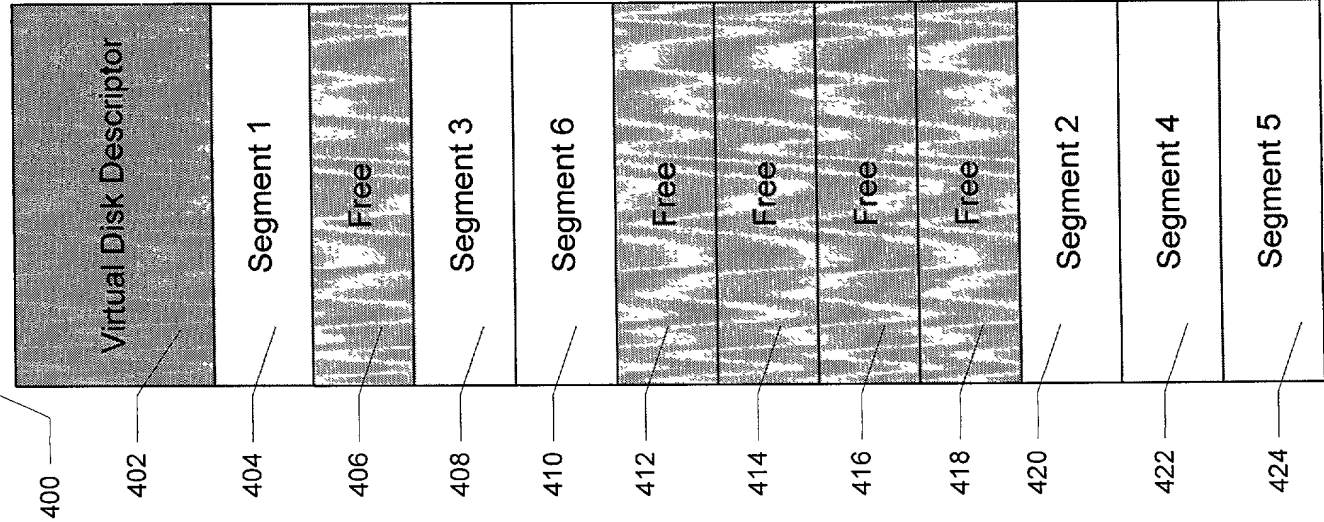


Figure 5

# Segment Map in memory



Number of free segments of free size based on virtual disk size/segment size

Home Device
Physical Starting Sector
Sector Count
Segment Number
other information

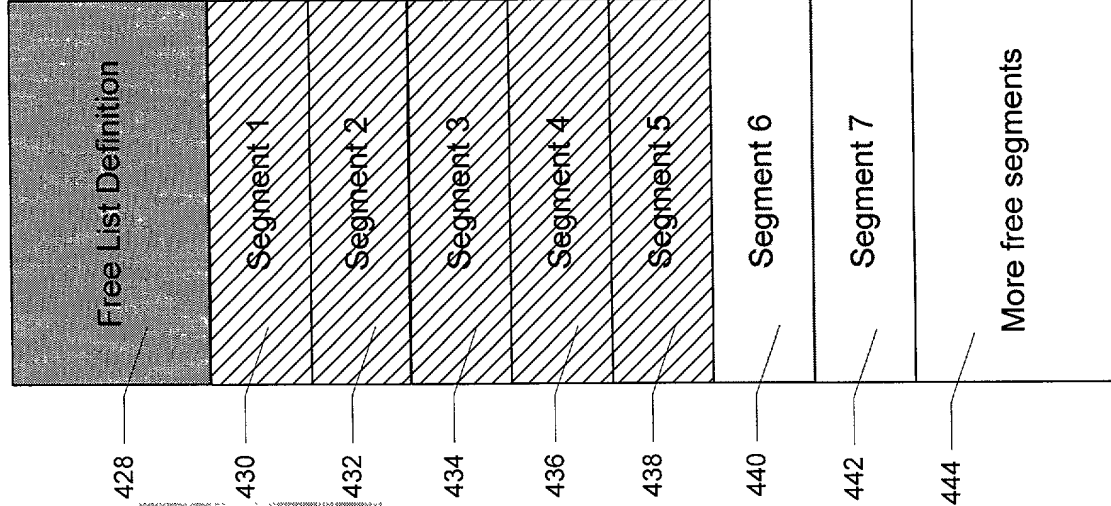


Figure 6

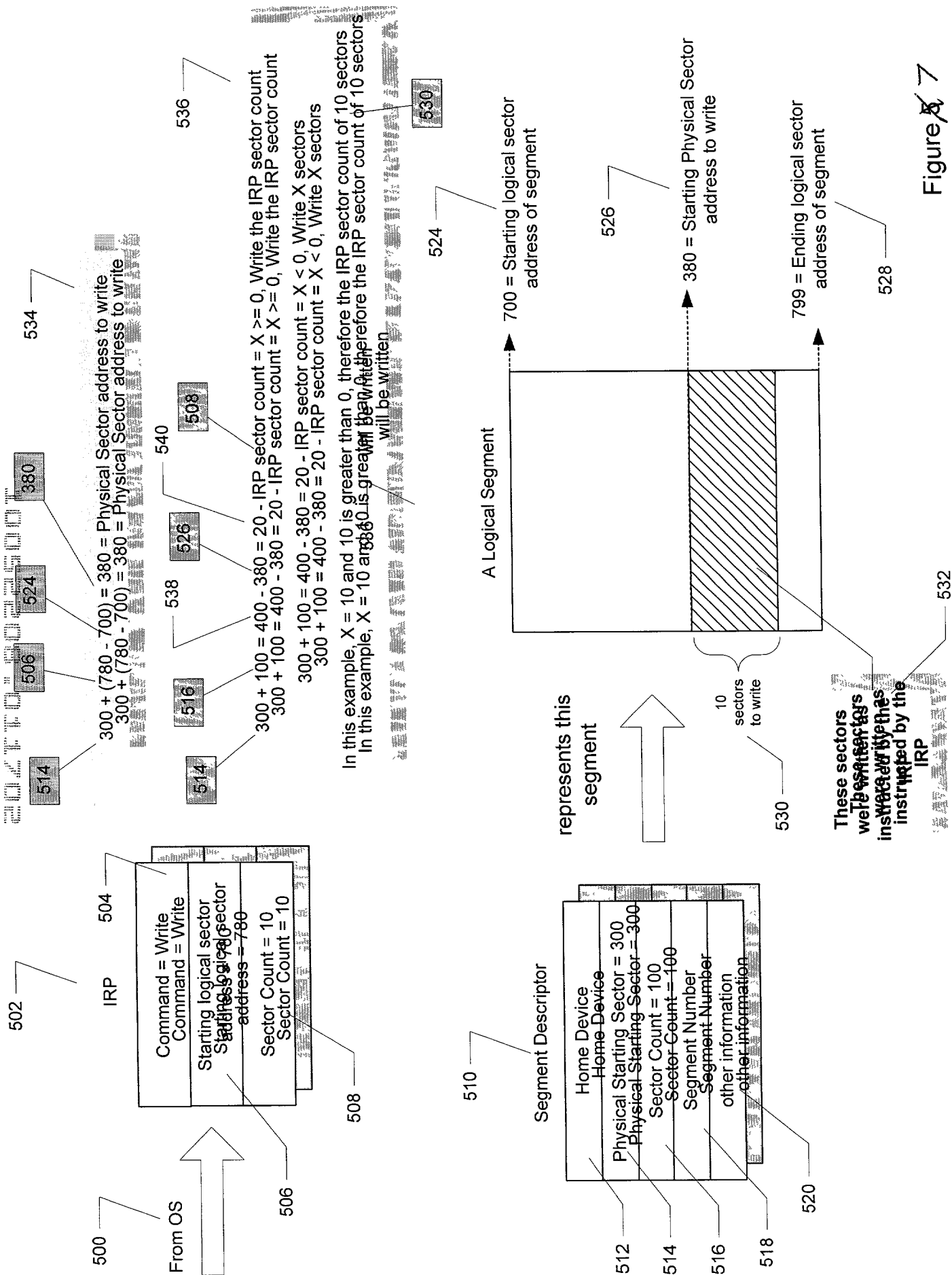


Figure 7

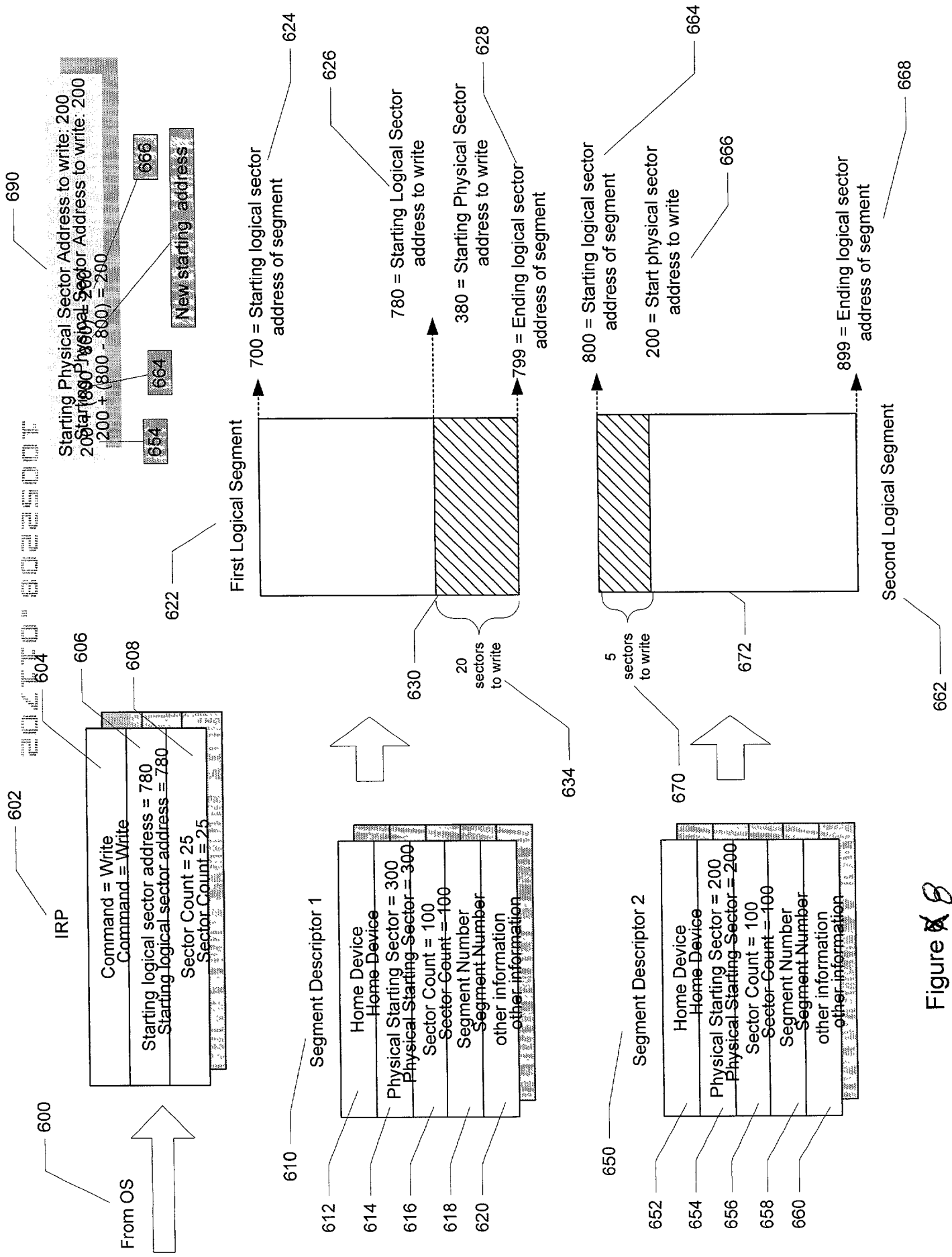


Figure 8